AMENDMENTS TO THE CLAIMS

Please cancel claims 5 and 13, amend claims 2, 4, 8-12, 14, 15, 18-21 and add new claims 24-26. No new matter is believed to be introduced by the aforementioned amendments and new claims. The following listing of claims replaces all prior versions and listings of claims in the application.

1. **(Canceled)**

2. **(Currently amended)** An optical add/drop patch cord comprising:

an optical add/drop component disposed in a casing, the optical add/drop component comprising:

an optical substrate;

a first thin film formed on a first end of the optical substrate; and

a second thin film formed on a second end that opposes the first end;

an input fiber permanently coupled to the casing and optically coupled to the optical add/drop component, the input fiber including a connector attached to an end of the input fiber;

a drop fiber permanently coupled to the casing and optically coupled to the optical add/drop component, the drop fiber including a connector attached to an end of the drop fiber;

an add fiber permanently coupled to the casing and optically coupled to the optical add/drop component, the add fiber including a connector attached to an end of the add fiber; and

an output fiber permanently coupled to the casing and optically coupled to the optical add/drop component, the output fiber including a connector attached to an end of the output fiber;

wherein the first thin film is configured to allow at least one wavelength of an optical signal from the input fiber to pass through the first thin film towards the drop fiber while reflecting other wavelength(s) of the optical signal to the second thin film; and

the second thin film is configured to reflect the other wavelength(s) of the optical signal towards the output fiber while allowing at least one wavelength to pass through the thin film from the add fiber towards the output fiber.

3. **(Withdrawn)** The optical add/drop patch cord of claim 2, the optical substrate comprising:

a first cube having a first attachment face; and

a second cube having a second attachment face that is adhered to the first face when pressed together.

4. **(Currently amended)** The optical add/drop patch cord of claim 2, wherein the input, drop, add and output fibers are coupled to the ~~casing~~ optical add/drop component using solder ferrules.

5. **(Canceled)**

6. **(Previously presented)** The optical add/drop patch cord of claim 2, the optical add/drop component including the collimating elements for ensuring that light is not dispersed within the optical add/drop component.

7. **(Original)** The optical add/drop patch cord of claim 2, the optical substrate including a combination of glass and air.

8. **(Currently amended)** An optical add/drop patch cord comprising:

a casing;

an input fiber secured to the casing, the input fiber including a connector attached to an end of the input fiber;

a drop fiber secured to the casing, the drop fiber including a connector attached to an end of the drop fiber;

an add fiber secured to the casing, the add fiber including a connector attached to an end of the add fiber;

an output fiber secured to the casing, the output fiber including a connector attached to an end of the output fiber; and

an optical add/drop component disposed in ~~a~~ the casing, the optical add/drop component comprising:

an optical substrate;

a first thin film formed on a first end of the optical substrate; and

a second thin film formed on a second end such that the second thin film is opposed to the first thin film;

an input port optically coupled to the optical substrate and arranged to propagate a multiplexed optical signal towards the first thin film;

a drop port optically coupled to the first thin film and arranged to receive at least one wavelength of the multiplexed signal from the first thin film;

an add port coupled to the second thin film and arranged to allow at least one wavelength to pass through the add port and into the second thin film; and

an output port coupled to the optical substrate and configured to receive signals from the second thin film.

9. **(Currently amended)** The optical add/drop patch cord of claim 8, ~~further comprising~~ wherein:

~~an~~ the input fiber is permanently secured to the casing ~~coupled to the input port~~ and optically coupled to the input port ~~optical add/drop component~~;

~~a~~ the drop fiber is permanently secured to the casing ~~coupled to the output port~~ and optically coupled to the drop port ~~optical add/drop component~~;

~~an~~ the add fiber is permanently secured to the casing ~~coupled to the add port~~ and optically coupled to the add port ~~optical add/drop component~~; and

~~an~~ the output fiber is permanently secured to the casing ~~coupled to the output port~~ and optically coupled to the output port ~~optical add/drop component~~.

10. **(Currently amended)** The optical add/drop patch cord of claim 8, ~~further comprising~~ wherein:

~~an~~ the input fiber is detachably secured to the casing ~~coupled to the input port~~ and optically coupled to the input port of the optical add/drop component;

~~a~~ the drop fiber is detachably secured to the casing ~~coupled to the output port~~ and optically coupled to the drop port ~~optical add/drop component~~;

~~an~~ the add fiber is detachably secured to the casing ~~coupled to the add port~~ and optically coupled to the add port ~~optical add/drop component~~; and

~~an~~ the output fiber is detachably secured to the casing ~~coupled to the output port~~ and optically coupled to the output port ~~optical add/drop component~~.

11. **(Currently amended)** The optical add/drop patch cord of claim 8, ~~further~~ wherein the input port, output port, add port and drop port each comprise a solder ferrule.

12. **(Currently amended)** The optical add/drop patch cord of claim 8 wherein:

the first thin film is configured to allow at least one wavelength of an optical signal from the input ~~fiber~~ port to pass through the first thin film towards the drop port while reflecting other wavelength(s) of the optical signal to the second thin film; and

the second thin film is configured to reflect the other wavelength(s) of the optical signal towards the output port while allowing at least one wavelength to pass through the thin film from the add port towards the output port.

13. **(Canceled)**

14. **(Currently amended)** A method for manufacturing an optical add/drop patch cord comprising:

attaching a connector to an end of an input fiber;

attaching a connector to an end of a drop fiber;

attaching a connector to an end of an add fiber;

attaching a connector to an end of an output fiber;

securing each fiber to a casing;

enclosing an optical add/drop component in ~~a~~ the casing, the optical add/drop component comprising:

an optical substrate;

a first thin film formed on one end of the substrate; and

a second thin film formed on an end opposing the one end such that the second thin film is opposed to the first thin film;

optically coupling an input port to the optical substrate whereby a signal input at the input port will travel towards the first thin film;

optically coupling a drop port to the optical substrate at the first thin film whereby a signal passing through the first thin film will propagate through the drop port and a signal reflected by the first thin film will be reflected towards the second thin film;

optically coupling an add port to the optical substrate at the second thin film whereby the second thin film is configured to reflect the signals reflected by the first thin film towards an output port and to permit a signal received by the add port to pass through the second thin film towards the output port; and

optically coupling the output port to the optical substrate.

15. **(Currently amended)** The method of claim 14, further comprising:

soldering ~~a~~ the input fiber to ~~at least one of~~ the input port;~~,~~

soldering the drop fiber to the drop port;~~,~~

soldering the add fiber to the add port;~~,~~ and

soldering the output fiber to the output port.

16. **(Withdrawn)** The method of claim 0, further comprising constructing the add/drop module wherein constructing comprises:

arranging two thin film cubes having thin film substrates such that the thin films are diagonally opposed to each other; and

pressing the two thin film cubes together to cause the two thin film cubes to fuse.

17. **(Withdrawn)** The method of claim 16, further comprising polishing attachment faces on the thin film cubes where the two thin film cubes will be fused to remove irregularities and impurities.

18. **(Currently amended)** The method of claim 14, comprising forming at least one of the first thin film and the second thin film on the optical substrate ~~forming comprising~~ by a vapor deposition process.

19. **(Currently amended)** The method of claim 14, comprising forming at least one of the first thin film and the second thin film on the optical substrate ~~forming comprising~~ by a film growth process.

20. **(Currently amended)** The method of claim 14, further comprising:

detachably securing ~~attaching optical fibers to at least one of~~ the input fiber to the casing and optically coupling the input fiber to the input port;~~,~~

detachably securing the drop fiber to the casing and optically coupling the drop fiber to the drop port;~~,~~

detachably securing the add fiber to the casing and optically coupling the add fiber to the add port;~~,~~ and

detachably securing the ~~drop~~ output fiber to the casing and optically coupling the output fiber to the output port.

21. **(Currently amended)** The method of claim 14, further comprising:

permanently securing ~~attaching optical fibers to at least one of~~ the input fiber to the casing and optically coupling the input fiber to the input port;~~,~~

permanently securing the drop fiber to the casing and optically coupling the drop fiber to the drop port;~~,~~

permanently securing the add fiber to the casing and optically coupling the add fiber to the add port;~~,~~ and

permanently securing the ~~drop~~ output fiber to the casing and optically coupling the output fiber to the output port.

22. **(Withdrawn)** An optical patch cord comprising:

a plurality of optical fibers ;

a casing that connects with the plurality of optical fibers using an add port, a drop port, an input port, and an output port;

an optical component disposed in the casing, the optical component comprising:

a first cube that receives an optical signal through the input port, the first cube having a first thin film formed on a face of the first cube, the first thin film configured to drop at least one wavelength of the optical signal through the drop port by allowing the at least one wavelength to pass through the first thin film to the drop port while reflecting other wavelengths of the optical signal; and

a second cube having an attachment face that adheres to an attachment face of the first cube and having a second film formed on a face of the second cube, the second cube configured to add the at least one wavelength to the optical signal by receiving the at least one wavelength from the add port and passing the at least one wavelength through the second thin film such that the at least one wavelength is added to the other wavelengths which are received from the first thin film and reflected towards the output port.

23. **(Withdrawn)** The optical add/drop patch cord of claim 22, wherein the plurality of fibers are connected to the casing by at least one of a molded strain relief, solder, and epoxy.

24. **(New)** The method of claim 2, wherein each connector is a coupler having a form factor that is substantially compliant with one of the Small Form Factor Multi-Source Agreement (SFF MSA) or the Small Form Factor Pluggable Multi-Source Agreement (SFP MSA).

25. **(New)** The method of claim 8, wherein each connector is a coupler having a form factor that is substantially compliant with one of the Small Form Factor Multi-Source Agreement (SFF MSA) or the Small Form Factor Pluggable Multi-Source Agreement (SFP MSA).

26. **(New)** The method of claim 14, wherein each connector is a coupler having a form factor that is substantially compliant with one of the Small Form Factor Multi-Source Agreement (SFF MSA) or the Small Form Factor Pluggable Multi-Source Agreement (SFP MSA).